The following is a timeline of EMS history in Texas. It is not comprehensive, but briefly chronicles some of the major evolutions of EMS throughout the last half-century.

1943

Ambulance permitting legislation (48th Legislature), Vernon's Texas Civil Statutes, Article 4590-b, required ambulance attendants to complete 8 hours of unspecified first-aid training and for each vehicle to be equipped with a first aid kit. The contents of the first aid kit were not specified. Applications for a permit to operate an ambulance were to be made to "any public health officer of any of the political sub-divisions of the state where said applicant's principal place of business is located", and the State Board of Health subsequently issued a two-year permit.

1966

The Division of Disaster Health and Medical Services was established within the Texas Health Department.

1970

A registry for EMS personnel was established. During the early '70s, the program's name gravitated from Civil Defense and Traffic Safety, Coordinated Emergency Medical Services Division, to the Division of Emergency Medical Services. An Attorney General's opinion approved a list of minimal equipment required to qualify for an ambulance permit.

1973

The EMS Act, Vernon's Texas Civil Statutes, Article 44470, was enacted by the 63rd Legislature. The legislation established the first advisory council (Texas EMS Advisory Council – TEMSAC) and called for the Coordinated EMS Division to: 1) develop a state plan, 2) divide the state into EMS delivery areas and designate at least one hospital in each area as a trauma center, 3) identify all public and private agencies which are or may be utilized for EMS, 4) plan for an interagency communications system, 5) include use of DPS, National Guard or armed forces helicopters in the state EMS plan and 6) for the division to serve as the single state agency to develop plans for federal EMS program participation (primarily categorical grants).

1975

The Texas Disaster Act, Vernon's Texas Civil Statutes, Article 6889-6, was enacted. The department assigned primary responsibility for disaster health services and disaster medical services to the EMS Division. Disaster medical services were comprised of medical care and treatment, and disaster health services was primarily concerned with preventative aspects of public health in disaster situations.

1983

The EMS Act, Vernon's Texas Civil Statutes, Article 4447o (68th Legislature), was amended, now requiring two certified EMS personnel aboard an ambulance, addressed state plan development and EMS regulation through personnel certification and vehicle permitting, and established the Bureau of Emergency Management.

1989

State legislation (HB 18) recodified EMS statutes under Health and Safety Code, established a statewide EMS/Trauma system and the formation of the Trauma Technical Advisory Committee (TTAC). The statute mandated that the 12-member technical advisory committee include appointees who were hospital administrators (urban and rural), representatives from statewide associations of nurses, practicing physicians board certified in emergency medicine, neurosurgery, surgery and anesthesiology, two family practice physicians (one rural), and a state trial lawyer association nominee.

The statute authorized the Bureau of Emergency Management to develop rules to include standards for advanced life support, mobile intensive care unit, specialized (including air ambulance) provider licensing, and certification of instructors, examiners and course coordinators.

1990

The Trauma Technical Advisory Committee (TTAC) met for the first time on January 11, 1990. The committee's charges from the Texas Board of Health were to develop a trauma registry, recommend rules and regulations on trauma systems, to comment on the operations of hospitals as they function in the trauma system, and to focus on the medical and technical aspects of developing a trauma system.

1991

EMS/Trauma rules were proposed on August 24, 1991. Legislation by the 72nd Legislature provided authorization for access to applicants' criminal history, addressed disciplinary action and administrative penalty, and defined standards for the handling of confidential communications

1992

The Texas Board of Health adopted the first trauma system rules in January 25, 1992. The rules established procedures and standards for the implementation of a comprehensive statewide EMS/trauma system. There were two RACs recognized by the Texas Department of Health.

1993

- Kathy Perkins was named to head the Bureau of Emergency Management's Trauma Program in March.
- A quarterly newsletter, *Trauma Developments*, began as an insert in the Texas EMS Magazine. It was created to update RACs, TSA contacts, hospitals and trauma coordinators informed on regional development and Trauma Program activity/assistance.
- The Trauma Registry Program moved from the Bureau of Emergency Management's Trauma Program to the Texas Department of Health Epidemiology Division.
- There were 11 RACs recognized by the Texas Department of Health.

1994

There were four RACs recognized by the Texas Department of Health.

1995

There were four RACs recognized and Texas achieves statewide coverage of organized/recognized RACs. Out of Hospital, Do Not Resuscitate language was incorporated by the 74th Legislature into Chapter 166 of the Health and Safety Code.

1997

The licensed paramedic credential was established in the 75th Legislature, 1997.

1999

The 76th Legislature enacted Health and Safety Code, Chapter 779, regarding Automated External Defibrillators (AED) and called for the department to develop rules for purchase, training, notification and use of AEDs by non-professionals. Chapter 773 of the Health and Safety Code was amended to create a governor-appointed EMS and trauma advisory group named the Governor's EMS / Trauma Advisory Council (GETAC).

2000

Rules for Emergency Medical Services Operator and Operator Instructor Training and Certification were incorporated into the Texas Administrative Code EMS rules, Chapter 157. On January 24, 2000, GETAC met for the first time.

2004

A <u>reorganization of the agency</u> took place in 2004 as a result of 2003 legislation (<u>HB 2292</u>) which realigned 12 health and human services agencies by consolidating similar functions within 5 agencies. The agency name changed from the Texas Department of Health to the Texas Department of State Health Services. The regulatory programs within the agency were reorganized into functional components. The Bureau of Emergency Management was dissolved and its components became part of the Regulatory Division subcategories of sections, units and groups.

2006

The following is a snapshot of EMS in 2006, and in many ways continues to be fairly descriptive of the current Texas EMS system.

There is no entity required to provide emergency medical services (it is not classified as an essential service). This has led to a variety of methods for the provision of EMS and an enormous disparity of level of services - what could be termed as a patchwork quilt of EMS in Texas.

Type of EMS System	Number (July 2006)	Percentage (July 2006)	Number (Sept 2001)	Percentage (Sept 2001)
Private	422	49%	241	35%
Fire Dept	149	17%	141	20%
City EMS	122	14%	116	17%
County EMS	92	11%	124	18%
Hospital	73	8%	73	10%
Police Dept	2	<1%	2	<1%
State EMS	2	<1%	2	<1%
Unidentified	2	<1%	0	0
Total	864		699	

EMS Vehicles Ground and Air		
Level of Service	Level of Service	
Basic Life Support (ground)	504	
BLS/ALS Capabilities (ground)	243	
BLS/MICU Capabilities (ground)	2022	
Advanced Life Support (ground)	18	
ALS/MICU Capabilities (ground)	126	
Mobile Intensive Care Unit (ground)	1003	
Rotor wing	72	
Fixed wing	41	
Specialty	8	
Total Vehicles	4037	

Constituencies:

- Fire Chiefs/Marshals (well-organized)
- Fire Fighters (well-organized)
- Private Providers (well-organized)
- Educators (small organization)

- Individuals/Volunteers (small developing organization)
- County Judges/City Managers (well-organized)
- Hospitals (well-organized)
- Public (not organized; varying expectations)

Levels of Service:

- Basic Life Support (non-invasive, i.e. bandaging, splinting, CPR)
- Advanced Life Support (invasive, i.e. IVs, intubation, some meds)
- Mobile Intensive Care (invasive, cardioversion, full spectrum meds, chest decomps)

Methods of funding:

- Government Subdivision Tax-Supported Systems EMS provided directly by municipal and county governments, such as fire department EMS or third public service EMS systems, are principally funded as a line item budget within the governmental subdivision. Most of these systems also supplement the cost of their operations through low to moderate fee for service revenues.
- **Profit-Based Systems** (~35% of Texas EMS firms) Proprietary and Corporate entrepreneurial EMS providers operate strictly on earned revenue. The majority of private providers bill high fees for service.
- Governmental Subsidy Contract Systems Many private, non-profit, and volunteer independent EMS providers contract with local governments to provide service and are funded wholly or partially through negotiated subsidies. These providers also bill at moderate to high fees for service. Many county governments also subsidize local municipal EMS operations that are providing service to the county areas outside the municipal limits.
- Taxing-District EMS Systems Hospital, Fire, and Emergency Service Districts operate or contract with providers for service and fund the operations from the taxing revenues. Most of the service providers bill fees for service as supplemental revenue. Some taxing districts bill the fees for service and collect the revenue directly.
- Hospital-Based EMS Systems (~10% of Texas EMS firms) Some hospitals operate EMS systems as a hospital function and utilize the EMS personnel as ancillary staff in the emergency departments. The hospital EMS system is generally funded as a sub-budget of the hospital's operational funding. Fees for service for hospital-based EMS providers are generally billed as a hospital service.
- Subscription EMS Systems Some EMS providers sell subscriptions, or memberships, as a funding source. In these systems, membership fees are collected annually and the subscriber is guaranteed no, or nominal, out-of-pocket costs if the service is used. Third party insurers are billed for the balance of the fees, however, and the membership fee is considered the patient's deductible, or co-pay, amount.
- Community Supported Volunteer EMS Systems (~20 % of Texas EMS firms) Many volunteer ambulance services are wholly funded through community fund drives, donations, bake-sales, bingo games, barbecue dinners, chili cook-offs, etc. by the residents of the communities. Some of these community supported systems bill low to moderate fees for service, however, many of them do not charge fees at all.
- Other sources of funding for EMS Systems There are a variety of other sources for partial funding of local EMS operations including utility bill "user fee" surcharges; state EMS funding; grants from federal, state, and private foundations; independent "Preferred Customer Contracts" with long term care facilities; and independent exclusive contracts with sports arenas, race tracks, special events, amusement parks, and industries.

What is a typical rural firm?

Approximately 20% (~170) of licensed Texas EMS firms are volunteer; the majority of these are in the rural and frontier areas of our state - in places such as Happy, Terlinqua, and Nocona.

A typical rural firm is:

- Volunteer
- Licensed as BLS with MICU capability (this sounds better than it is, because this may simply mean that they have one volunteer paramedic, therefore, provide that level of care when that paramedic is available)
- <5 (No more than 5) full-time paid staff
- 2.6 vehicles (often some of the vehicles are more than ten years old)
- 14 volunteers (handful usually very active; work full-time at their Areal@ job)
- often struggle to provide coverage 24/7, especially during regular work hours
- may have some subsidy from a governmental entity
- often have to raise funds from fish fries, bake sales, donations
- cover much larger amounts of territory than urban counterparts

What are the current requirements for EMS in Texas?

TDH is charged with establishing minimum standards for providers and individuals

Current regulations for providers

- 2 Emergency Care Attendants (variance option is available)
- an ambulance meeting federal design guidelines (KKKA1822C)
- appropriate supplies and equipment
- communications capability

<u>Current regulations for individuals</u> (see spreadsheet for numbers)

- Initial (4 year certification):
- application
- 18 years old
- GED or HS diploma
- 40 624 hours of initial training
- \$75 \$100 fee (waived for volunteers)
- pass national exam and skills test

Re-Certification (4 year certification):

- application
- \$75 \$100 fee (waived for volunteers)
- Options (test, CE, National Certification, recertification exam)

Major Problems in Texas Rural EMS

No one responsible for its provision (not classified as an essential service), however the public thinks that it will be there if 911 is called

Underfunded

Volunteer firms have historically under-billed or not billed for services, which has led to very low reimbursement rates for medicaid, medicare, insurance, etc.; when they do bill, donations often decrease dramatically, even though reimbursement rates do not cover costs; additionally, billing is **very** complicated and most volunteer firms do not have the structure needed

Volunteers have been decreasing rapidly for some time; \sim 14 percent of certificants/licensees; down from \sim 25% within the last decade; \sim 20% of firms, down from \sim 30% in the last 5 years (private firms have probably taken up a high percentage of the areas that would be profitable and actually are leaving areas that they had come into, leaving no structure)

REASONS - increasing number of working hours to maintain standard of living; people moving to the cities, particularly young adults; aging population; private firms taking over; increasing standards for initial and recertification; decreasing numbers of volunteers; burnout

- Difficulty in accessing training (initial and continuing); although that is improving with the internet
- Rural hospitals are facing increased budget pressures; closures put much increased pressure on the local EMS providers
- Defining the minimum level of EMS service that should be provided to area residents and travelers; some state standards are lagging behind national/contingent state standards, however, raising standards puts much pressure on the areas with less resources
- The profession does not speak with one voice
- Public expectations vs. knowledge of EMS

What is the state currently doing?

- Facilitating the development of regional EMS/trauma systems
- Providing grant funds
- Technical Assistance

2010

Provider Licenses & First Responders

EMS Providers	1145
First Responder Organizations	598

EMS Provider Licenses

EMS Providers - Fee Exempt	133
EMS Providers - Non Exempt	1012

First Responder Organizations

First Responder Organizations - Fee Exempt	347
First Responder Organizations - Non Exempt	251

Personnel Certifications

Emergency Care Attendant (ECA)	3291
Emergency Medical Technician (EMT)	30,310
EMT-Intermediate (EMT-I)	3799
EMT-Paramedic (EMT-P)	13,901
Licensed Paramedic (LP)	5863

Texas EMS His	story
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	Grand Total	57,164